The fact developed by the experiments of Dr. S., namely, that by animal food the quantity of butter in the milk is so much increased, would seem to prove that the fatty matter of the milk is formed, in a great measure at least, from the albumen.—*Vierteljahrschrift, f. d. Prakt. Heilk.*, No. xxv., 1868. D. F. C.

3. *Congenital Monorchia in Man.*—Dr. GRUBER, of St. Petersburg, in searching the literature of the last three hundred years, has found but twenty-two genuine cases of congenital deficiency of one testicle (monorchia). From a careful consideration of the details of these cases, and also one observed by himself, he is enabled to assert that the subjects of this congenital deficiency are generally well-developed, free from other malformation and structural defects, and capable of arriving at an advanced age. The scrotum is usually well-developed, and the testicle is more frequently absent on the right side than on the left. The seminal apparatus and genital organs on the opposite side rarely present any associated anomalies. The vesicula seminalis corresponding to the affected side is generally normal in size and form, and still acts as a secreting gland. No spermatozoa, however, have been found in the fluid taken from the vesicula seminalis on the side of the monorchia, although these bodies are generally present in great numbers in that of the opposite gland. The subject of a congenital monorchia, so long as the opposite testicle is well-developed, is not incapable of procreating. In a case reported by Graaf, the man was the father of four children.—*Brit. Med. Journ.*, April 4, 1868, from *Medizinische Jahrbücher*, hf. i. 1868

[Monorchidia and cryptorchidia have been fully investigated by M. E. GODARD in his valuable monograph, for a notice of which our readers are referred to the number of this Journal for January, 1859, p. 205 *et seq.*]

MATERIA MEDICA, GENERAL THERAPEUTICS AND PHARMACY.

4. *Bromide of Potassium.*—The high estimation in which this salt is held and its employment in the neuroses, especially in epilepsy, has given great interest to the researches of M. LABORDE upon the physiological effects produced upon animals, particularly frogs. He has deduced two principal facts: The progressive diminution, followed by complete and persistent abolition of reflex movements; and the entire preservation of voluntary movements.

The experiments of MM. EULENBERG and GUTTMAN agree in proving its paralyzing action on the heart and all the central parts destined for the conduction of motion and sensation in the spinal cord and the brain. The paretic or paralytic state in animals, the cessation of voluntary and reflex movements, the arrest of respiration and of the pulsation of the lymphatics, and the absolute want of all reaction to a mechanical or chemical irritation of the skin are proofs of this.

It acts directly and primarily, then not upon the encephalon, but upon the spinal cord, the function of which of presiding over reflex actions it annuls (*Acad. des Sci.*, Juillet).

By another mode of experimenting upon frogs, rabbits, and birds, MM. MARTIN DAMOURETTE and PELVET invalidated the interpretation of the preceding experiments. With the object of elucidating the exact *modus operandi* of this remedy, they administered it in different ways, in physiological, therapeutical, and toxic doses; and by withdrawing from its action several portions of the animal, so that it could be ascertained by exciting one, whether the other responded and in what manner.

The following are their most important conclusions: 1. The effects of bromide of potassium are always *direct*, that is, due to contact with the tissues, whether at the region of application, or in the parts of the system to which it is carried by the circulation, or in the organs by which it is eliminated. 2. It has no *elective* action: certain systems are, however, affected before others. Thus, the sensory nerves lose their properties before the motor, the latter are affected before the spinal cord, and the spinal cord before the muscles. 3. The heart's action is destroyed at a late stage, and its contractions are frequently the only evidence of the vitality of the animal. 4. The respirations are affected in a secondary manner only; they cease at the time of death in birds and mammals, while their continuance in frogs is dependent on the rapidity of the other effects. 5. The minute bloodvessels contract immediately, in the region of injection, and later, throughout the organism, and this contraction is succeeded by dilatation. 6. In warm-blooded animals, the temperature falls very sensibly; at first, in the region of injection, and then in every part of the body. This difference depends on the effect on the minute bloodvessels, which is at first a local, and then a general one. 7. The secretions of the glands are diminished in proportion to the contraction of their bloodvessels. 8. The anaphrodisiac power of bromide of potassium is due to contraction of the minute afferent arteries of the *corpus cavernosus*. 9. It is not a poison of any special tissues or systems, it kills all, nerves and muscles; and it may therefore be defined as a general nervo-muscular poison.—*Dictionnaire Annuel des progrès des Sciences et Instit. Médicales.* Par M. P. Garnier, 1868; also *Journ. Anat. and Phys.*, May, 1868.

[Our readers will find some highly-interesting experiments, by Dr. Bill, on the mode of action of bromide of potassium in the original department of this No., p. 17.]

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5. *Physiological Action and Therapeutical Uses of Conium*, by Dr. Geo. Harley. *Physiological Action.*—Hemlock acts as a depressor of the muscular movements, but the effect is influenced by the state of the muscles, whether they are in action or at rest. If a vigorous adult man take five or six fluidrachms of the succus conii, and then start on a long walk, in half or three-quarters of an hour he experiences a feeling of tiredness, especially in the knees and hamstrings. He may still continue to walk, feeling powerless, with some giddiness and feeling of heaviness over his eyes; in an hour the sense of fatigue has gone off, and in another hour he is as active as ever. If five fluidrachms and a half be taken and he remain at rest, the eyes become first affected—the adjusting function is interfered with—then succeed drowsiness and dilatation of the pupils, then weakness of the legs; he becomes cold, pale, and tottering; the pulse is regular and of undiminished force and volume; there is a diminution of muscular power in every part of the muscular system, and almost paralysis of the hamstrings and levator palpebræ. These symptoms are at their maximum about two hours after taking the dose, and have quite disappeared in three hours and a half. The succus was administered to several persons in doses of from three fluidrachms to one fluidounce with similar symptoms, but in doses short of three or four fluidrachms there is no appreciable symptom. The action is uniform and invariable in man and in all other animals. There is depression of the motor function of the third nerve, a lazy movement of the eyes, and sometimes strabismus, with imperfect adjustment of the refracting media of the eye. The effects are quite distinct from those of alcohol—the latter acts on the motor system only secondarily, and does not affect the action of conium. The full action of hemlock is a sleep; it is to the corpora striata, the smaller nervous centres, and the whole of the motor tract, just what opium is to the brain—it tranquillizes and renovates the whole muscular system. At first it appears to paralyze this, but it is really a tonic, for Dr. Harley administered conium in full doses for months, and found the condition of the body was improved. The action of conium is influenced by the muscular activity more than by the muscular power. The sedentary with abundance of strength are more affected than the delicate but active. A delicate child will often take as much as would reduce some strong men to a tottering condition. Hence the dose of conium must be proportioned to the degree of motor activity of the individual, whether child or adult; in fact, it might almost be said that by conium we may measure the bodily activity of the individual. Hemlock has no pure cerebral effects; the irritability of the spinal cord is diminished; there is no evidence of distinct interference with the sensory functions.